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THE HOME-MADE ORGANIC ECOLOGY PESTICIDES

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ABSTRACT

The increases of chemical pesticides usage for farmer or gardeners to protect their plant is a continuous concern for people and our lovely environment. The purpose of this study to avoid the toxicity chemical pesticides to human and to air pollution from happen. It is because inside the common pesticides that commercial, there is chemical ingredients that using. These chemical pesticides can be dangerous and hazardous to human when they did not work in the right manner. Besides, can also cause air and water pollution when using uncontrolled. Worrying about nowadays situation, our group got the idea to use only organic ingredients to overcome the using of chemical pesticides. All we used are chillies, gingers, and lemongrass. This amazing home-made ecology pesticide is so smelly and can make the insects fly and go away. The organic insect poison is found to play the greatest role in fighting the concern of people about the commercialized chemical pesticides. A trial was carried out in four weeks when we try to test it on several types of plants. Surprisingly that the result shows a great positive impact because the tested plants are such in a good condition and did not be destroyed by any parasite insect and also free from any chemical. Unbelievable too, the leaves also showed the more greenly look and healthy.

Keywords: Chemical pesticides, organic pesticides, homemade pesticides, natural pesticides, organic ingredient

1. INTRODUCTION

Garlic, hot chillies, beans and screwpine leaves are most common used in daily cooking ingrediencies. But less study made to recognize the used of that special plants to the insect or plant pesticides. Amazingly, the garlic and hot chili have special remedies to overcome the concern of using the chemical substance in pesticides. Scientifically, there are risk in farmer producer and human vegetarian as well toxically. So to help overcome this issue, this study and innovation come out with a good solution.

2. MATERIAL AND METHOD

Sample of screwpine leaves, hot chili, garlic, beans and dish soap were collected and mixed all together after blended them together. The hot chili and garlic as the main antiseptic properties used in this investigation.

3. RESULT

The test had been carried out to two special plant chosen. For the first one we had sprayed and another one had not. After that, for the past 4 weeks later, we take the result and found out something different between

the two plants. The graft shows the result of the numbers of healthy leaves with across the time being in four weeks.

Table 1. The healthy leaves condition in four weeks

Manner/ week	Week 1	Week 2	Week 3	Week 4
Spray	30	33	42	44
Not spray	30	24	20	12

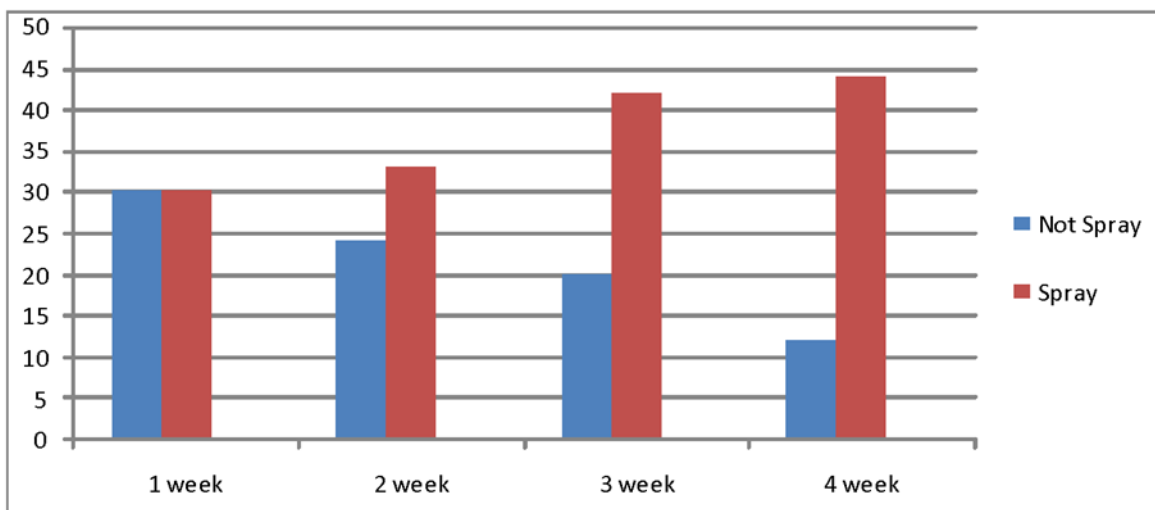


Figure 1. Effect of organic pesticides on healthy leaves

The result a really positive result to the plant that has be spray by the organic pesticide. The previous study also proved the garlic and hot chilies are effectives organic pesticides towards aphids on rape plants (Miralai, 2006). So, it is very recommended for the future studies about the effectiveness in garlic in helping farmer in many ways especially in aphids. Besides, the beans ingredient made the leaves healthier and greenly due to nitrogen elements inside.

REFERENCES

1. Duke, S.O. (1990). Natural pesticides from plants, in: Janick, J. and Simon, J.E. (Eds.), *Advances in new crops*. Timber Press, Portland, OR., pp. 511-517
2. Gerhandson, B. (2002). Biological substitutes for pesticides. *Trend. Biotechnol.* 20(8): 338- 343.
3. Miralai, S. (2006). *Replacing Artificial Additives with Natural Alternatives*, MSc Thesis, Dalhousie University, Nova Scotia, Canada.
4. West, K. (2002). *Home Made Organic Pesticides*. Retrieved from: <http://www.esortment.com/homemadeorgani-renu.htm>. (Accessed on: October 17, 2008).



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Kelulusan daripada pihak YBhg. Profesor dalam perkara ini amat dihargai.

Sekian, terima kasih.

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